

# HEAT SPY<sup>®</sup> MONITOR

## FIXED INFRARED SENSORS

**NEW!** Heat Spy Monitor Fixed Infrared Sensors from Wahl Instruments! Infrared temperature sensors offer quick and easy integration into process measurement and control systems for fast, accurate, and reliable temperature measurement of your process.

**Specifically designed** for easy maintenance and high performance in harsh industrial environments, and temperature ranges from 32° to 5792°F (0° to 3200°C).



Accuracy as high as  $\pm 0.3\%$  of reading  $+1^{\circ}\text{C}$ .

**Quality stainless steel housings and accessories** protect units even in extreme conditions.

**Functions in high ambient temperatures** on most models up to 482°F (250°C) with fiber optics, or up to 392°F (200°C) with optional water cooling jacket.

**Wahl fixed infrared sensors are used for temperature measurement on a variety of materials such as:** Aluminum, Plastics, Fluids, Rubber, Ceramic, Wood, Glass, Metals, Steel, and Textiles;

Wahl Heat Spy Monitors are available from:

[www.palmerwahl.com](http://www.palmerwahl.com)  
[sales@palmerwahl.com](mailto:sales@palmerwahl.com)  
1-800-421-2853

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and in many applications such as: Induction Heating, Annealing, Welding, Sintering, Melting, Rolling Mills, Rotary Kilns, Casting, and Forging.

**Included user friendly software** allows setting of response time, peak measurement, and emissivity for maximum flexibility of applications.



**Various output options** are allow you to convert your temperature measurements into an electrical signal. Select from 4-20mA, 0-20mA, 1-10V, RS232, RS485, and USB, enabling you to more effectively monitor your process.

**We are proud to provide the finest sensors from our Asheville, NC location.** We are an ISO certified company, assuring our processes result in a top quality product.

**Our Customer Service Department is ready to answer your questions and help you select the right sensor for your application.** We can assist you in determining the best product to fit your process, for years of reliable performance.



Complete specifications available online

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# M45 Series • Fiber Optic Sensors



Note: optional heads available

Wahl's M45 digital fiber optic infrared sensors are highly accurate sensors, specially designed for applications under harsh conditions. Standard and two-color models can be used in areas with high ambient temperatures (up to 250°C) without cooling, or in areas where strong electromagnetic interference can influence a correct measurement. Main parameters such as emissivity and response time can be adjusted via PC.



- Analog Output 4-20mA, 0-20mA, or 0-10V
- Digital Interface RS232 or RS485
- Fiber Optics and Optical Head withstand up to 250°C Ambient
- High Optical Resolution
- Laser Targeting Light
- Datalogging with included Software
- Very Good Stability
- Peak Picker

Note: Response time can be adjusted on most models. Accessories are not CE.

Fiber Optic Sensors with Fiber Optic Head and Sighting Option					
Sighting	Spectral Range	Accuracy	Response Time	Distance to Spot	
				40:1 or 80:1	100:1 or 180:1
Laser Sighting	1.6 $\mu\text{m}$	$\pm 0.3\%$ Rdg +1°C	2 mS	300° to 1800°C 572° to 3272°F	
	1 $\mu\text{m}$			750° to 2500°C 1382° to 4532°F	
	0.7 to 1.15 $\mu\text{m}$ Two Color	$\pm 0.5\%$ Rdg +1°C	20 mS	800° to 2500°C 1472° to 4532°F	1000° to 3200°C 1832° to 5792°F
No Sighting	1 $\mu\text{m}$	$\pm 0.3\%$ Rdg +1°C	250 mS	600° to 1800°C 1112° to 3272°F	
	0.7 to 1.15 $\mu\text{m}$ Two Color			$\pm 0.5\%$ Rdg +1°C	20 mS
		750° to 3200°C 1382° to 5792°F			
		800° to 2500°C 1472° to 4532°F			

# M35 Series • Standard Sensors with Laser or Thru the Lens Sighting



The M35 Series high accuracy digital infrared sensors provide high performance and low maintenance of non-contact temperature measurement. The emissivity, analog output sub-range or response time and peak picker can be preset at the factory or adjusted through software. This enables the instruments to be adapted to various measuring tasks. These infrared sensors have a solid Stainless Steel housing which provides reliability and safety even in harsh industrial environments. A variety of optics with fixed focus can be easily used in all industrial areas.



- High Accuracy
- Fully Digital
- High Optical Resolution
- Analog and Digital Output
- Rugged Stainless Steel Housing
- User Friendly Software

Standard Sensors with Standard Head and Sighting Option						
Sighting	Spectral Range	Accuracy	Response Time	Distance to Spot		
				50:1	100:1	200:1
Laser Sighting or Thru the Lens Sighting	1.6 $\mu\text{m}$	$\pm 0.3\%$ Rdg +1°C	2 mS	260° to 1400°C 500° to 2552°F	300° to 1300°C 572° to 2372°F	350° to 1800°C 662° to 3272°F
	1 $\mu\text{m}$			600° to 1900°C 1112° to 3452°F		
	0.7 to 1.15 $\mu\text{m}$ Two Color	$\pm 0.5\%$ Rdg +1°C	20 mS	600° to 1800°C 1112° to 3272°F	800° to 2500°C 1472° to 4532°F	1000° to 3200°C 1832° to 5792°F

Note: Response time can be adjusted on most models. Accessories are not CE.

Complete specifications and accessories online



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# M35 Series • Standard Sensors with Laser Sighting



**Wahl's M35 Series** are high accuracy digital infrared sensors which provide high performance and low maintenance of non-contact temperature measurement. The emissivity, analog output sub-range or response time and peak picker can be preset at the factory or adjusted through software. This enables the instruments to be adapted to various measuring tasks. These infrared sensors have a solid Stainless Steel housing which provides reliability and safety even in harsh industrial environments. A variety of optics with fixed focus can be easily used in all industrial areas.

- High Accuracy
- Fully Digital
- High Optical Resolution
- Analog and Digital Output
- Rugged Stainless Steel Housing
- User Friendly Software
- Fast Response Time
- Very Good Stability

Standard Sensors with Standard Head and No Sighting				
Sighting	Spectral Range	Accuracy	Response Time	Distance to Spot
				50:1
Laser Sighting	8 to 14 $\mu\text{m}$	$\pm 1.5\%$ Rdg or $3.6^\circ\text{F}$ ( $2^\circ\text{C}$ )	60 mS	$0^\circ$ to $1000^\circ\text{C}$ $32^\circ$ to $41832^\circ\text{F}$

Note: Response time can be adjusted on most models.  
Accessories are not CE.



# M30 Series • Compact Sensors • Low Temperature



**Wahl's M30** sensor is a highly accurate, compact stationary infrared sensor with 2 wire connection, used for non-contact temperature measurement of non metallic surfaces or painted, coated or anodized metals.

The small housing dimensions enable the integration of the instrument into compact production machines. The solid and robust design of the instrument guarantees reliability even in tough industrial environments. The built-in air purge unit protects the lens from contamination of dust and moisture, enabling the instrument to be adapted to various measuring tasks.

- Small and robust infrared sensor
- 2 wire installation
- High Optical Resolution
- Fast response time
- Easy electrical and mechanical installation
- Linear 4-20mA output
- IP65 Splash Proof

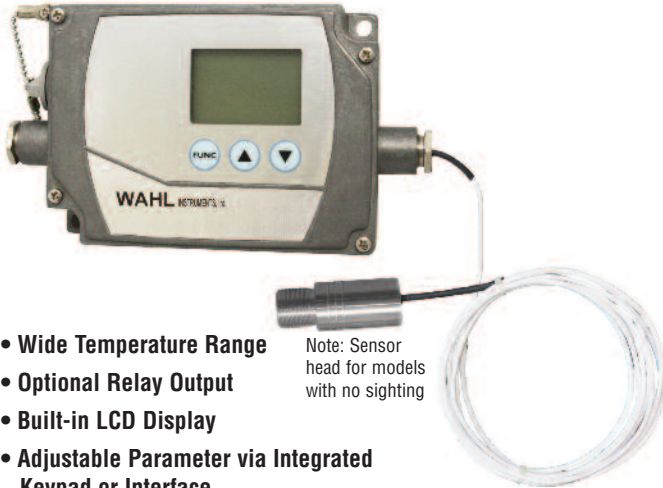
Compact Sensor with Standard Head and No Sighting				
Sighting	Spectral Range	Accuracy	Response Time	Distance to Spot
				12:1
No Sighting	8 to 14 $\mu\text{m}$	$\pm 2\%$ Rdg or $1^\circ\text{C}$	300 mS	$0^\circ$ to $400^\circ\text{C}$ $32^\circ$ to $752^\circ\text{F}$

Note: Response time can be adjusted on most models.  
Accessories are not CE.



Complete specifications and accessories online

# M20 Series • Optical Head Sensors with Display



Wahl's M20 Series feature an extended optical head for non-contact temperature measurement on metals, ceramics, graphite, etc. The sensor head is unaffected by electromagnetic interferences (e.g. induction). Equipped with a display which shows the current temperature in measuring mode, parameters can be read and changed via integrated keys. The infrared sensor can be powered through the USB port of a laptop computer with no external power supply required. Analog output is 4-20mA, with optional 0-20mA, 0-10V, user selectable. RS485 Serial interface is available as an option.

- Wide Temperature Range
- Optional Relay Output
- Built-in LCD Display
- Adjustable Parameter via Integrated Keypad or Interface.
- Optional Isolated RS485 or USB 2.0 Interface

Note: Sensor head for models with no sighting



Note: Sensor head for models with sighting



Optical Head Sensors with Standard Head, Optional Sighting and Display							
Sighting	Spectral Range	Accuracy	Response Time	Distance to Spot			
				2:1 or 15:1	20:1	40:1	80:1
LED or Laser Sighting	1.6 $\mu\text{m}$	$\pm 0.3\%$ Rdg +1°C	10 mS		250° to 1300°C 482° to 2372°F	300° to 1300°C 572° to 2372°F	350° to 1800°C 662° to 3272°F
	1 $\mu\text{m}$					600° to 1900°C 1112° to 3452°F	
LED Sighting	0.7 to 1.15 $\mu\text{m}$ Two Color	$\pm 0.5\%$ Rdg +1°C	20 mS				800° to 2500°C 1472° to 4532°F
No Sighting	8 to 14 $\mu\text{m}$	$\pm 1.5\%$ Rdg or +2°C	60 mS	0° to 800°C 32° to 1472°F			

Note: Response time can be adjusted on most models. Accessories are not CE.

# M15 Series • Sensors with Coaxial Laser Sighting



1.6  $\mu\text{m}$  Sensor Head

8 to 14  $\mu\text{m}$  Sensor Head

The M15 Series feature standard heads and oversized displays. With 1% full span accuracy, and robust housings, these units can be integrated into your process to monitor for critical temperature deviations.

The M15 units come standard with 4-20mA and relay output, making them easy to add to most control circuits.



- Adjustable Emissivity 0.1 to 1.0
- High-Low Alarm with Control Box
- Parameters Adjustable via Keypad
- Audible Over-Limit Alarm
- Linear 4-20 mA Output
- Built-in LED Display
- Max Value
- 2 Relay Outputs
- RS485 Output

Sensors with Standard Head, Coaxial Laser Sighting and Control Box					
Sighting	Spectral Range	Accuracy	Response Time	Distance to Spot	
				30:1	80:1
Coaxial Laser Sighting	8 to 14 $\mu\text{m}$	$\pm 1\%$ of Full Span	500 mS	0° to 1200°C 32° to 2192°F	
	1.6 $\mu\text{m}$		200 mS		400° to 1200°C 752° to 2192°F

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